

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>C03120</b>	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"><b>FOR FURTHER ACTION</b></div> <div>see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</div> </div>
International application No. <b>PCT/AU03/01163</b>	<div style="display: flex; justify-content: space-between;"> <div>International filing date (<i>day/month/year</i>) <b>5 September 2003</b></div> <div>(Earliest) Priority Date (<i>day/month/year</i>) <b>6 September 2002</b></div> </div>
Applicant <b>RESMED LIMITED et al</b>	

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of **7** sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (See Box II).

4. With regard to the **title**, ☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**, ☐ the text is approved as submitted by the applicant

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. **6c**

☒ as suggested by the applicant.

☐ None of the figures

☐ because the applicant failed to suggest a figure

☐ because this figure better characterizes the invention

**Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos :  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos :  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

**Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

See extra sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-36, 65-70

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**Box III**      **TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)**

A respiratory mask assembly for delivering breathable gas to a patient includes a frame and a cushion (14). The cushion (14) has a non-face contacting portion structured to be connected to the frame, a face-contacting portion (26) structured to engage the patient's face, and an intermediate portion (28) that interconnects the non-face contacting portion and the face-contacting portion (26). The intermediate portion (28) includes a gusset portion that applies a first component of force to the patient's face through the face-contacting portion (26). A spring structure is coupled with the face-contacting portion (26) of the cushion (14). The spring structure applies a second component of force to the patient's face through the face-contacting portion (26). The first and second components of force applied by the gusset portion and spring structure, respectively, determine a contact force of the cushion (14) applied to the patient's face through the face-contacting portion (26). The intermediate portion (28) may also include an elastic cuff portion. Further, in the case of an oral mask, the sealing section may include a portion that is designed to promote a better seal in the chin region of the mask.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/01163

**A. CLASSIFICATION OF SUBJECT MATTER**Int. Cl. <sup>7</sup>: A61M 16/06, A62B 18/08

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DWPI and keywords (IPC A61M A62B A61H, breath respir inspir inhal seal cushion pad gusset bellow fold mask interface force pressure distribut cuff and like terms)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/62326 A1 (MAP MEDIZINTECHNIK FUR ARZT UND PATIENT GMBH & CO KG) 30 August 2001 Figure 6 and corresponding description	1-36
Y	Figure 6 and corresponding description	1-36
Y	WO 01/97893 A1 (RESMED LTD et al) 27 December 2001	1-36
X	US 5349949 A (SCHEGERIN) 27 September 1994 Column 2 line 62 - column 4 line 52	1-36
X	EP 303090 B1 (SGE SOCIETA GENERALE ELASTOMERI SPA) 22 April 1992 drawings	1-36

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

* Special categories of cited documents:			
"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier application or patent but published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search  
23 October 2003

Date of mailing of the international search report

4 NOV 2003

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/01163

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2706983 A (MATHESON et al) 26 April 1955	1-36
X	US 5592938 A (SCARBERRY et al) 14 January 1997 Figure 5; Column 7 lines 39-43	65-70
X	US 4971051 A (TOFFOLON) 20 November 1990 Figure 2	65-70

**Supplemental Box**

(To be used when the space in any of Boxes I to VIII is not sufficient)

**Continuation of Box No: II**

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that *prima facie*, there appear to be at least TWO inventions as follows:

1. Claims 1, 26, 27, 30, 32, 34, 35, 65, 66 and the dependent claims are directed to a cushion, mask assembly or a method for improving the comfort of a mask assembly having means (as defined in each independent claim) to redistribute the components of the contact force of a cushion on the patient's face. It is considered that *means to redistribute the components of the contact force of a cushion on the patient's face* comprises a first "special technical feature".
2. Claims 37, 57 and the dependent claims are directed to a respiratory mask or a cushion for a respiratory mask having a cushion sealing portion including a nasal seal section, side seal sections and a contoured chin seal section. It is considered that *the nasal seal, side seal and contoured chin seal sections of the cushion sealing portion* comprises a second "special technical feature".

Since the abovementioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept, a priori.

Since the claim groups are characterised by inventive concepts that cannot be effectively searched as part of one search, they cannot be covered by a single search fee.

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU03/01163

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member	
WO 0162326	AU 34250/00	EP 1259279	
WO 0197893	AU 67133/01	EP 1292351	US 2002029780
	US 2003089372		
US 5349949	DE 4233448	FR 2682043	GB 2260084
EP 0303090	CH 671702		
US 2706983	NONE		
US 5592938	US 5222478	US 5343878	
US 4971051	NONE		
END OF ANNEX			